THE HEAT WORK TN OPEN-HEALTH FUENACES 1!)<J
Si'icoM) Si-: HIES.
(Quantity of water employed Temperature at end of experiment TempGnit.uro before the experiment
Increase of tempernture Quantity of metal used (Corresponding" culs. per k<£. steel,

	Wu,t;<T Bucket 1.	Water 'Huck«t It.
4-	,'W litres.	,*Jt) litres.
it . *	17-SU(J.	17 -o-O.
	s-(>" G. 1,0<M £. :jl«r> eals.	l.VO" (J. 2,072 ^-. 21)9 (.'.'ids.

In thin later experiment, the temperature of the metal streaming into the moulds was ascertained by Warmer's pyrometer to be l,4(>r>° 0. The metal was " ingot iron " and cast well, in spite of the relatively low temperature.
The slag floating on the metal had a higher specific beat and, therefore, at an equal temperature, a higher heat content per unit of weight. .Professor Wedding gives the specific heat of ingot iron in the molten state as being 0*207 and to the slag belonging to it O'JW, wherofrom it follows that the heal content of the latter is equal to rr>!) times that of the metal. The author found it in the experiments quoted 1*41, 1"5() and 1"52, whorefrom as a mean one can take 1"5 times as approximately correct. Professor B. Neumann calculates on 400 to 500 calories; Btassano GOO calories; Professor Wiist found, as above quoted, 580 calories.
On the basis of the before-going materials, it may be well assumed that one will not use too low values if one fixes the heat contents of the following as under :—
1 k#. molten pit? iron, not overheated, 250 cals. . . . (/tO)
1 ,, ula^ from Hiuuo ,, ,, «'{7/> ,, ... (47)
1 „ eastablo steed .... ;W() „ . , , MH1
I „ nlag from name .... 525 ,, ... (19)
(I) INFLUENCE OP TUB IMPUHITIBH IN THE IRON ON THE HEAT RKQUIRF/D IN T.UK PHODUGTION OF BTKKL. •
The demands which are established on the output of heat of the furnace admit of being ascertained from the sum of the heat contents of all products which issue from the furnace, if